### Conference Programme

#### From Nutraceuticals to Pharmaceuticals – Common Challenges and Approaches

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<th>Theme</th>
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<td>Theme 1</td>
<td>Novel sources of nutraceuticals and natural product pharmaceuticals</td>
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<td>Theme 2</td>
<td>Bioavailability/pharmacokinetics of nutraceuticals and natural product pharmaceuticals</td>
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<td>Theme 3</td>
<td>Translating novel pathways and mechanisms of action into the clinical use of nutraceuticals and natural product pharmaceuticals</td>
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<td>Theme 4</td>
<td>Personalized nutrition and natural product medicine: therapeutic evidence and regulatory requirements?</td>
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<td>Theme 5</td>
<td>Two different worlds? - addressing the convergence between nutraceuticals, TCM and western medicine</td>
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<td>Theme 6</td>
<td>Drug/nutrient/microbiome/lifestyle interactions</td>
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**Tuesday, September 26, 2017**

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<tr>
<td>14.00 – 18.00</td>
<td>Registration</td>
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<tr>
<td>18.00 – 19.00</td>
<td>Joint Symposium Lecture with Natural Product Biotechnology:</td>
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<td><em>Route to Product Development – from concept to a commercially viable product</em></td>
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<td>Dr Charlie Bavington, Glycomar, Scotland</td>
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<tr>
<td>19.00 – 20.30</td>
<td>Welcome Reception (Joint with NPBT) - AECC</td>
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*ICMAN*  
*IUPHAR*
**Wednesday 27th September 2017**

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<tr>
<th>Time</th>
<th>Session 1: Novel Sources of Bioactives I</th>
<th>Session 2: Industry Session 1</th>
<th>Session 3: Novel Sources of Bioactives II</th>
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<td>09.00-12.30</td>
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| 09.00-09.45    | **ICMAN Invited Speaker - “Spawning off Nature for New Drug Leads”**  
Professor Raymond Andersen, University of British Columbia, Canada |                               |                                          |
| 09.45-10.10    | **ICMAN Invited Speaker - “Nutraceuticals retrieved from food processing waste”**  
Dr Charis Galanakis, Galanakis Laboratories, Greece |                               |                                          |
| 10.10-10.35    | **IUPHAR Invited Speaker – “Natural Products from African Flora have the Potential to Fight Cancer Multi-Drug Resistance”**  
Professor Victor Kuete, Université de Dschang, Cameroon |                               |                                          |
| 10.30-11.00    | **Tea/Coffee Break**                    |                               |                                          |
| 11.00-12.00    | **Session 1: Novel Sources of Bioactives I**  
0021 - Isolation and identification of an antimicrobial and cytotoxic chlorated perylenequinone from the symbiotic fungus *Aspergillus fumigatus* D.  
Huawei Zhang¹, Xuelian Bai², Hong Wang¹.  
²Zhejiang University of Technology, and  
¹Hangzhou Normal University, Hangzhou, China | **Session 2: Industry Session 1**  
0048 - The 2017 Marine Pharmaceuticals Pipeline.  
AM Mayer¹, M Nguyen², P Kalwajtys², H Kerns², DJ Newman³, KB Glaser⁴.  
¹Department of Pharmacology and  
²Chicago College of Pharmacy, Midwestern University, USA,  
³National Cancer Institute, Maryland, USA,  
⁴AbbVie Inc., North Chicago USA  
The Pierre Fabre Open Innovation Project.  
F Sautel. ; Pierre Fabre, France | **Session 3: Novel Sources of Bioactives II**  
0020 - Proteome, Biochemical and Plasma Glucose Analysis of *Coscinium fenestratum* Stem Extract as Antidiabetic Agent.  
P Okechukwu¹, S Ekeku¹, A Simbuna¹, Swee Sena Teo¹, G Akuwoah¹, GFroemming².  
¹UCSI University and  
²Univestiti Technology Mara, Selangor, Malaysia  
0029 - Study on antihypertensive activity of an aqueous extract of *Anogeissus leiocarpus* (AEAL) DC Guill et Perr bark of trunk in L-NAME-induced hypertensive rats.  
J Belemnaba¹, M Nitiema¹-², S Ilboudo¹, N Ouedraogo¹,  
G Ouédraogo¹, M Belemilga²-³, S Ouedraogo¹,  
IGuissou²-³.  
¹Research Institute for Health Sciences, and  
²University of Ouaga, Burkina Faso  
0037 - Isolation, identification and anti-cancer activity of minor alkaloids from *Triclisia subcordata* Oliv.  
Fl. Uche¹, M Abed¹, M. Abdallah¹, FP Drijfhout¹, J McCullagh¹, T WD Claridge¹, A Richardson¹, Wen-Wu Li¹.  
¹Keele University, ²Oxford University, ³UK |
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<th>Time</th>
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<tr>
<td>12:00 – 14:00</td>
<td>Lunch &amp; Posters</td>
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<tr>
<td>13:00 – 14:00</td>
<td>Workshop Session 1: Novel tools for nutraceutical/NP pharmaceutical research</td>
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<td>Workshop Session 2: Biotechnology and upscaling of production</td>
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**14:00-17:45**

**Theme 2:** Bioavailability/pharmacokinetics of nutraceuticals and natural product pharmaceuticals

**14:00-14:45**

*Keynote Lecture:* "Factors affecting bioavailability of plant polyphenols"
Professor Junji Terao, Konan Women’s University, Kobe City, Japan

**14:45-15:10**

ICMAN Invited Speaker – “Polyphenols as natural products and nutraceuticals: bioavailability and bioactivity”
Professor Gary Williamson, University of Leeds, UK

**15:10-15:35**

IUPHAR Invited Speaker--“Natural product-based protein amyloid inhibitors”
Professor Bin Xu, Virginia Technical College of Agriculture & Life Sciences, USA

**15:35-16:00**

Tea/Coffee Break

**16:00-17:00**

**Session 4: Novel Sources of Bioactives III**
- **0028** - Beneficial effect of *Phyllanthus amarus* (Euphorbiaceae) on DOCA-salt-induced left ventricle cardiac hypertrophy and endothelial dysfunction in rats.
  - A N’guessan Yao1,2, Z Rasul1, I Najmanová1, M Kamagaté2, A Said1, P Chabert1, C Auger1, H Die-Kakou2, V Schini-Kerth1. Laboratory of Biophotonics and Pharmacology, University of Strasbourg, France, 2Department of Pharmacology, Felix Houphouët-Boigny University, Cote D’Ivoire
- **0034** - Endothelium-dependent relaxation by a hydroethanolic extract of *Adansonia digitata* leaves in porcine coronary artery rings and rat thoracic aorta, mesenteric, carotid artery rings: Role of NO and EDH.
  - M Sene1,2, M O Kane, P Chabert, C Auger1, C Vonthron-Sénécheau1, A S Diallo2, VB Schini-Kerth1. 1Université de Strasbourg, France,

**Session 5: Bioavailability/pharmacokinetics I**
- **0031** - Quantitative analysis of an oil based natural compound extracted from plasma.
  - A Thabit Jones, H Oldham, M Graz. Neem Biotech Ltd, South Wales, UK
- **0067** – Determination of DQ-798 in rat plasma by UHPLC-MS/MS and its application to a pharmacokinetic study.
  - Zhi-Feng Zhang1,3, Li Chen1, Li-Sheng Ding2, Liang Liu1,3, Hua Zhou1,3, Pei Luo1,3, Lin-Sen Qing2. 1Macau University of Science and Technology, 2Chengdu Institute of Biology, 3Faculty of Chinese Medicine, Macau University of Science and Technology, China
- **0032** – Bioaccessibility of organosulphur compounds from *Allium sativum*.
  - G Marti1, G Evans2, L Jones1, B Viade2, B Ruiz2, E Gallego2, M Graz1. 1Neem Biotech Ltd, South Wales, UK

**Session 6: Novel Sources of Bioactives IV**
- **0054** - Phytoestrogenic property of mimosine: a phenylalanine alkaloid.
  - AKM Moyeenul Hug1,2, Kamal Rullah1, MFFM Aluwi1, Lam Kok Wai1, Jhonson Stanslas2, Jamia Azdina Jamal1
  1Universiti Kebangsaan Malaysia, Kuala Lumpur, 2Universiti Putra Malaysia, Serdang, Malaysia
- **0059** - Identification and characterisation of phytochemicals activating endogenous cytoprotective mechanisms.
  - Jennifer Harbottle, Andreas Kolb
  Rowett Institute of Nutrition and Health, University of Aberdeen, Aberdeen, UK
- **0060** - Revalorisation of rapeseed pomace (RSP): a study into anti-oxidant and DNA protective properties (in vitro) of a RSP extract and its effects on
<table>
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<tr>
<th><strong>2Université Cheikh Anta Diop, Dakar, Senegal</strong></th>
<th><strong>Wales, UK, 2ainia, Valencia, Spain</strong></th>
<th><strong>neurodegenerative disease C. elegans models.</strong></th>
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<tr>
<td>0081 - Effect of the hexane fraction obtained from the hydroalcoholic extract of <em>Punica granatum</em> leaves on cecal ligation and puncture-induced sepsis in mice.</td>
<td>NCF Sousa¹, I Fernandes da Silva Figueiredo¹, MC de Araújo¹, EP de Andrade¹, TC Alves¹, BLR da Silva¹, DMS Pereira¹, SJF Mendes¹, et al.</td>
<td>F Pohl¹, M Goua¹, G Bermano², W R. Russell³, L Scobbie³, P Maciel⁴,⁵, A Teixeira-Castro⁴,⁵, P Kong Thoo Lin¹</td>
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<tr>
<td>¹Universidade CEUMA, São Luís, ²Universidade de São Paulo, ³Universidade Federal do Maranhão, São Luís, São Luís, Brazil</td>
<td></td>
<td>¹,²Robert Gordon University, Aberdeen, UK, ³University of Aberdeen, Aberdeen, UK, ⁴University of Minho, Portugal, ⁵Government Associate Laboratory, Portugal</td>
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EVENING

19.00-20.00: Civic Reception (Maritime Museum)
**Thursday 28th September 2017**

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<tr>
<th>Time</th>
<th>Session 7: Translating novel pathways - Diabetes and Renal</th>
<th>Session 8: Industry Session II</th>
<th>Session 9: Translating novel pathways - Cancer</th>
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<tr>
<td>11:00-12:00</td>
<td>0010 - Ganoderma triterpenes inhibit kidney cyst development via down-regulating the Ras/MAPK signaling pathway. Limin Su¹, Ruoyun Chen², Jenmy Lu³, Baoxue Yang⁴. ¹Peking University, and ²Chinese Academy of Medical Sciences, Beijing, China, ³Harvard Medical School, Boston, MA, USA</td>
<td>0008 - The key role of analytical sciences in the discovery and characterization of bioactives from food and nutraceuticals. A G-G Perrenoud¹, P-M Allard², O Ciclet¹-², D Guillarme⁵, E F Queiroz², J-L Veuthey², J-L Wolfender², D Barron¹. ¹Nestlé Institute of Health Sciences, Lausanne, ²University of Geneva, Geneva, ³University of Lausanne, Lausanne, Switzerland</td>
<td>0019 - A novel synthetic ω-3 fatty acid epoxide analogue activates breast cancer cell killing in vitro and in vivo. M Murray¹, H Choucair², S Allison¹, K Bourget³, Y Chen¹, C Dunstan¹, T Rawling². ¹University of Sydney, Sydney and, ²University of Technology Sydney, Sydney, NSW, Australia</td>
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<td>0009 - Protective effect of Anogeissus Acuminata bark extract against experimentally-induced diabetic neuropathy in Wistar rats. Hong Zhou. Peking University, Beijing, China</td>
<td>0092 - Drug Development with Natural Products - a Journey. Harriet Oldham. Neem Biotech Ltd, Abertillery, UK</td>
<td>0053 - Screening active components of Modified Xiaoyao Powder for chemoprevention in breast cancer cells: Involvement of the NRF2/NQO1 signalling pathway. Yujie Yang¹, Yanran Wang¹, Ting Wang¹-², Xuehua Jiang¹. ¹Sichuan University, and ²Sichuan Cancer Center, Chengdu, China</td>
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<td>0088 - Low molecular weight fucoidan inhibits fibrotic processes in diabetic nephropathy.</td>
<td>0094 - Functionality of selected seaweed extracts on selected pharmaceutical applications. J. Brebin¹, B. Queguineur⁵, M. Dehaie¹, S. Chopin², M. L. Leichtnam³, F. Hennequart¹. ¹Algaia SAS, St Lô, France, ²Laboratoires Gilbert,</td>
<td>0077 - Chemopreventive activities of kolaviron, a novel bioflavonoid from the seed of Garcinia cola: mechanistic perspectives. O Farombi¹, I Adedara¹, S Abarikwu¹</td>
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<td>A Navale³, A Paranjape³. ³Parul Institute of Pharmacy, Gujarat and, ²Edutech Learning Solutions Pvt. Ltd, Vadodara, India</td>
<td>¹Algaia SAS, St Lô, France, ²Laboratoires Gilbert,</td>
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Theme 4: Personalized nutrition and natural product medicine: therapeutic evidence and regulatory requirements?

Keynote Lecture - “The anticancer activity of the antimalarial artemesunate”
Professor Thomas Effert, University of Mainz, Germany

ICMAN Invited Speaker – “Personalised nutrition, nutraceuticals and multi-omic diagnostics to precisely prevent ageing at the fundamental genome level and optimise tissue regeneration”
Professor Michael Fenech, CSIRO, Adelaide, Australia

IUPHAR Invited Speaker – “Repositioning Andrographolide for Inflammatory Diseases: Mapping its Mechanistic Networks”
Professor WS Fred Wong, National University of Singapore, Singapore

Session 10: Translating novel pathways - Inflammation

0055 - Importance of pro-inflammatory immune lymphocyte Th17 in antitumoral properties of Resveratrol, a polyphenol of wine.
E Limagne1,2, M Thibaudin1,2, P Chalons1,2, F Végran1,2, G Mignot1,2, L Apetoh1,2, F Ghiringhelli1,2, D Delmas1,2. 1University of Bourgogne-Franche Comté, 2Inserm LTeam “Cancer and adaptive immune response”, 1Centre Georges François Leclerc, Dijon, France

0069 - Nrf2/HO-1 pathway alleviates epithelial-mesenchymal transition by inhibiting HMGB1 expression in pulmonary fibrosis.
Jiao Qu1,2, Jian Gao1,2, Zhihui Zhang3, Wencheng Zhou9, Wenhui Cui9, Panpan Zhang1, Cheng Limagne1,2, M Thibaudin1,2, P Chalons1,2, F Végran1,2, G Mignot1,2, L Apetoh1,2, F Ghiringhelli1,2, D Delmas1,2. 1University of Bourgogne-Franche Comté, 2Inserm LTeam “Cancer and adaptive immune response”, 1Centre Georges François Leclerc, Dijon, France

Session 11: Translating novel pathways - Gastrointestinal

0018 - Can colonic metabolites be responsible for hypotensive effect of orally given quercetin?
P Mladenka, I Najmanova, J Pourova, T Mignos, M Vopršalová. Charles University, Czech Republic

Jeong-Hwa Woo1, Jong-Min Park2, Young-Joon Surh2, Hye-Kyung Na3. 1Sungshin Women’s University and 2Seoul National University, Korea

Session 12: Translating novel pathways - Cardiovascular Disease I

0006 - Endothelium-independent vasorelaxant effect of Thymus linearis via inhibition of phosphodiesterases in porcine coronary artery.
Alamgeer Alamgeer1, C Auger2, P Chabert3, C Lugnier3, V.B Schini-Kerth3. 1University of Sargodha, Pakistan, 2University of Strasbourg, France

0046 - An anthocyanin-rich blackcurrant extract induced NO-mediated relaxation in coronary artery rings and eNOS phosphorylation in cultured endothelial cells: Role of sodium-glucose cotransporters 1 and 2.
H Lee3, S Khemais-Benkhiat1, P Chabert1, C Auger1, S-H Park3, C Kevers2, J Pincemail3, M-H Oak4, VB Schini-Kerth3. 1University of Strasbourg, France,
Zheng³
¹Dalian Medical University and ²The Second Affiliated Hospital of Dalian Medical University, DaLian China, ³The First Affiliated Hospital of Anhui Medical University and ⁴Anhui Medical University, Hefei, China

0074 - Natural compounds affecting neutrophil migration.
H Morad¹, S Luqman¹, ², P McNaughton²
¹King’s College London, London, UK, ²CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow, India

National University, Seoul, Republic of Korea

0016 - Oxidative stress induced both apoptosis and necroptosis in endothelial cells.
Xiuping Chen, Wenwen Zhao. University of Macau, Macau, China

²University of Liège, Belgium, ³CHU of Liège, Belgium, ⁴Mokpo National University, Republic of Korea

0071 - Endothelium-dependent contractions depending on biased sGC activation: the Janus face of thymoquinone.
S WS Leung, CMS Detremmerie, PM Vanhoutte. University of Hong Kong, Hong Kong

<p>| Evening | 19.30-23.00: Conference Dinner &amp; Ceilidh (Beach Ballroom) |</p>
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<td>09.00-12.30</td>
<td><strong>Theme 5:</strong> Two different worlds? - addressing the convergence between nutraceuticals, TCM and western medicine</td>
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<td>09.00-09.45</td>
<td>Keynote Lecture – “The role of natural products for human health”&lt;br&gt;Professor Rudolph Bauer, Karl-Franzens University, Graz, Austria</td>
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<tr>
<td>09.45-10.10</td>
<td>ICMAN Invited Speaker – “West meets East: A systems biology approach to the mechanistic understanding of traditional medicines”&lt;br&gt;Professor David Adelson, University of Adelaide, Australia</td>
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<td>10.10-10.35</td>
<td>IUPHAR Invited Speaker - “Nootropic effect and action mechanisms of Ginsenoside Rg1, a candidate of smart drug”&lt;br&gt;Prof. Juntian Zhang, Chinese Academy of Sciences</td>
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<td>10.35-11.00</td>
<td>IUPHAR Invited Speaker - “TBC.”&lt;br&gt;Prof. Guanhua Du</td>
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<td>11.30-12.20</td>
<td><strong>Session 13: Translating novel pathways - Cardiovascular Disease II</strong></td>
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<td><strong>0022</strong> - Salidroside prevents toxicity induced by delayed treatment of tPA in a rat model of focal cerebral ischemia involving PKA- and PI3K-dependent Akt activation.&lt;br&gt;<strong>Wei Zuo</strong>&lt;sup&gt;1,2&lt;/sup&gt;, <strong>Dan Mei</strong>&lt;sup&gt;1&lt;/sup&gt;, <strong>Naihong Chen</strong>&lt;sup&gt;2&lt;/sup&gt;.&lt;br&gt;1Peking Union Medical College Hospital, and 2Institute of Materia Medica, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China</td>
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<td><strong>0045</strong> - The omega-3 EPA:DHA 6:1 formulation improves ageing-related blunted endothelium-dependent relaxations and increased contractile responses in the mesenteric artery: role of oxidative stress and cyclooxygenases.</td>
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<td><strong>Session 14: Addressing the convergence between nutraceuticals, TCM and western medicine</strong></td>
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<td><strong>0079</strong> - Traditional Chinese medicine Liuwei Dihuang decoction and its new formula, LW-AFC, as promising therapies against Alzheimer’s disease: Pharmacological actions and mechanisms.&lt;br&gt;<strong>Wenxia Zhou</strong>, <strong>Jianhui Wang</strong>, <strong>Xiaorui Cheng</strong>, <strong>Yan Huang</strong>. Beijing Institute of Pharmacology and Toxicology, Beijing, China</td>
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<td><strong>Chinese Pharmacological Society Invited Speaker</strong></td>
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<td><strong>0015</strong> - MAM, a natural naphthoquinone, induces necroptosis in cancer cells.&lt;br&gt;<strong>Xiuping Chen</strong>, <strong>Wenwen Zhao</strong>. University of Macau, Macau, China</td>
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|            | **0040** - The effects and mechanisms of two main constituents from Glycyrrhiza uralensis Fisch.-

**Session 15:** Drug/nutrient/microbiome/lifestyle interactions

|            | **0078** - Nutritional protection against obesity.<br>**A Kolb, L Petrie. University of Aberdeen, Aberdeen, UK** |
|            | **0086** - Validation study of a food frequency questionnaire for the measurement of food consumption in polyphenols : use of a urinary bioamarker. Preliminary results.<br>A Hoge<sup>3</sup>, M Guillaume<sup>3</sup>, AF Donneau<sup>1</sup>, A Albert<sup>1</sup>, JP Cheramy- Bien<sup>1</sup>, J Tabart<sup>3</sup>, C Kevers<sup>3</sup>, J Dommes<sup>3</sup>, EE Raymond<sup>3</sup>, J-O Defaine<sup>1</sup>, J Pincemail<sup>1</sup> |
|            | 1CHU of Liège, 22University of Liège, Liège, 3Peking Union Medical College Hospital, Beijing, China |
M A. Farooq, L Amoura, S Gaertner, ZR. Niazi, S Park, AW. Qureshi, M-H Oak, F Toti, VB. Schini-Kerth, C Auger. University of Strasbourg, France

0051 - Gp130-Mediated STAT3 Activation by S-Propargyl-Cysteine, an Endogenous Hydrogen Sulfide Initiator, Prevents Doxorubicin-Induced Cardiotoxicity.

Jian Wu1, Zhijun Wang1, Wei Guo1, Yizhun Zhu2.
1 Fudan University, Shanghai, and 2Macau University of Science and Technology, Macau, China

0042 - The omega-3 EPA:DHA 6:1 formulation prevents the monocrotaline-induced pulmonary hypertension, pulmonary artery remodeling and endothelial dysfunction, and right ventricular failure in rats.

Ai Said, ZR. Niazi, M Burban, R Kessler, M Canuet, F Toti, L Monassier, N Boehm, C Auger, F Meziani, VB. Schini-Kerth
University of Strasbourg, France,

induced autophagy in non-small cell lung cancer.

Belgium

TBC – Selenium and obesity.
G Bermano, Robert Gordon University, Aberdeen, UK

12:20 – 14:00 Lunch & Posters

13.00 – 14:00 Workshop Session 5: Developing a database of nutraceuticals and NP-pharmaceuticals
Workshop Session 6: Social Responsibility and Sustainability of exploiting natural resources

14:00–17.45 Theme 6: Drug/nutrient/microbiome/lifestyle interactions

14:00–14.45 Keynote Lecture - Interaction of polyphenols with gut microbiota; understanding the health effects of polyphenols’
Dr Francisco Tomás-Barberán, CEBAS-CSIC, Madrid, Spain

14:45–15:10 ICMAN Invited Speaker
Cancer Chemopreventive effects of natural products with anti-inflammatory and proresolving activities
Professor Young-Joon Surh, Seoul National University, South Korea

15:10–15:35 IUPHAR Invited Speaker
Preventive and therapeutic management of chronic disease based on traditional medicine
Professor Shilin Chen, Institute of Chinese Materia Medica, Beijing, China

15:35–16:00 Closing Ceremony & Prize Giving